REMARKS

Applicant respectfully traverses and requests reconsideration.

The drawings are objected to for not showing a processing module and having incorrect margins pursuant to 37 CFR 1.84(g). Applicant submits proposed amendments to Figs. 1 and 3. Shown in red are the proposed changes. Applicant also submits revised Figs. 1 and 3 for approval.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Seon-Mo Park et al, "Digital System for Configuration Detection" 1992 IEEE ("Park").

Park is directed to a digital system capable of detecting the configuration of 25 pin connector cables. The operation of Park's system consists of testing one pin at a time, and then detecting all pins connected to that particular pin. (Page 510, col. 2, lines 30-32). This method is used because a multi-pin connector may not need all available pins, so some pins may be connected together. As cited by the examiner, the method described by Park is implemented by a microcontroller. (Page 511, Col. 2, lines 17-19).

The microcontroller sends the connection information to the host computer after it is detected. Park's system does not detect the configuration of the particular peripheral using the connector. Rather, the configuration information of the connector is graphically displayed on the CRT screen. (Page 512, Col. 1, lines 15-16). The microcontroller is independent of the host computer system. As cited by the examiner, on page 511, Col. 2, lines 10-13, the microcontroller must send the connection information to the host computer system to be displayed on the CRT screen. Furthermore, the host computer system must initiate the microcontroller to perform the detection system disclosed by Park. (Page 511, Col. 2, line 10-11).

As to claim 1, the Park reference fails to teach a method of detecting a monitor, as taught by the Applicant. Park teaches a method for the detection of pin configurations after a monitor is already detected and in use. Park's method assumes and requires that a monitor is already connected to the data processing system. (Page 511, Col. 2, lines 10-13). Park's method is not designed to detect a monitor, but rather to display the connection configurations of a connector

on a monitor that is already in an operational mode and that displays the pin configurations so that a user can visually see the connector pin configuration on-screen. Therefore the method is not directed to detection of a monitor or flat panel display.

Furthermore, as to Claim 1, the Park reference does not teach, among other things, a method for detecting a monitor, the method comprising: monitoring a first node of a connector, the connector for coupling to a flat panel display; asserting a first output signal to indicate the first node is in a first state; and receiving the first output signal at a flat panel display controller, as disclosed by the Applicant. Park teaches a system to "select one pin at a time and detect all pins connected to that particular pin," [page 511, Col. 2] which effectively "determine[s] the connectivity among pins." [page 511, Col. 1, ll. 25-27]. Examiner cites Fig. 3, "Check serial port & Send data." This does not teach, inter alia, the state indication disclosed by the Applicant in Figure 3 of the application, but instead teaches a system where a monitor is already detected and in use and teaches to show, in the display, which pins of a connector are connected.

Claims 2-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of U.S. Patent No. 5,718,744 ("Johnson").

Johnson is directed to a method for safely connecting peripheral devices while a data processing system is powered-on. The operation of Johnson's system utilizes an apparatus to determine whether a device has been connected or disconnected from a peripheral port. (Col. 3, lines 36-60). For this function, Johnson utilizes a local port interrupt as described in Fig. 5B. The data processing system is not interrupted in determining whether a device has been connected or disconnected. Furthermore, Johnson discloses control circuitry used to supply or withdraw power from the peripheral port whenever a device is connected or disconnected.

As to Claims 2-13 and 15-16, Applicant respectfully requests a showing of Park's disclosure of claim limitations of the Applicant's invention. The Examiner does not specifically address language contained in Claims 2-13, or 15-16. As such, these claims are allowable.

As to Claim 14, Applicant respectfully reasserts the relevant remarks with respect to Claim 1. Park does not teach a flat panel display driver having an output to provide a display image to the connector and an input coupled to the output of the signal detect portion. The

Examiner asserts that on Page 511, Col. 2, lines 11-14, Park discloses "a flat panel display having an output to provide a display image of the connector." However, this appears to be a mischaracterization of the claimed invention. The Applicant claims a "flat panel display driver," not a "flat panel display." Furthermore, the Applicant claims that the display driver has "an output to provide a display image to the connector," not "an output to provide a display image of the connector" as asserted by the Examiner. Also, the Examiner does not address the claim language concerning "an input coupled to the output of the signal detect portion." Accordingly, Claim 14 is believed to be allowable in view of the Park and Johnson references.

As to Claims 5-9, the Examiner neglected to address the claim language. Furthermore, the claims are not disclosed in the Park or Johnson references, and also add additional novel subject matter. As to Claim 5, the references do not teach, among other things, the stable state determination illustrated, for example, in Fig. 3, 114, 112. As to Claims 6-8, the references also do not teach that the stable state determination shall be based on a predetermined amount of time, or that the predetermined amount of time shall be based upon an internal timer or a register value. As to Claim 9, the references do not teach a register value being indicative of a clock count.

Applicant respectfully requests a showing of Johnson's disclosure of certain claims of the Applicant's invention. The Examiner does not specifically address language contained in Claims 19-22.

As to Claim 18, Johnson does not teach "negating an enable signal to the hardware drivers for the flat panel display." The Examiner asserts that Johnson discloses "negating an enable signal to the peripheral device." However, the Applicant claims "negating an enable signal to the hardware drivers for the flat panel display." But the Examiner asserts that Johnson discloses "negating an enable signal to the peripheral device." Johnson does not appear to teach the use of a hardware driver. Accordingly, Claim 18 is believed to be allowable in view of the Johnson reference.

As to claim 18, Johnson discloses a device that generates a self-contained port interrupt. The port reset signal is provided through the connect/disconnect detector 506 and the control circuitry 510, both of which are contained within the I/O controller 502. The system itself is not

affected. Johnson's reference is silent as to a hardware driver, as disclosed by the Applicant. The applicant specifically claims generating a SYSTEM interrupt which is read by the CPU. Johnson does not generate a system interrupt. Accordingly, this claim is also believed to be allowable.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

By: C. Reckamp
Christopher J. Reckamp
Registration No. 34,414

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VEDDER, PRICE, KAUFMAN &
KAMMHOLZ
222 N. LaSalle Street
Chicago, IL 60601
(312) 609-7500
FAX: (312) 609-5005

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Please amend the specification as follows:

Please replace the paragraph beginning at page 5, line 22 with the following rewritten paragraph:

When initialized, the FPD engine 250 will retrieve display information over either a system bus, or a bus (not illustrated) that interfaces to video/graphics memory. The FPD engine [250]350 processes the data as appropriate for the connected FPD, and provides data to the TMDS transmitter 260 for display. The TMDS transmitter 260 is connected to the external FPD monitor through the connector 112 of Figure 2, which also houses the monitor detect pin. The TMDS transmitter 260 is enabled by a signal labeled TMDS ENABLE, which is discussed in greater detail herein.

Please replace the paragraph beginning at page 6, line 18 with the following rewritten paragraph:

When in state STABLE1 it has been determined that an external FPD monitor is connected. Upon entering state STABLE1 112, interrupt generation is processed based on the flow of Figure 4. At step [201]203 of Figure 4, a determination is made whether the generation of an interrupt is enabled. In the specific example, the interrupt is enabled based upon a register field labeled MONDET_INT_EN. If not enabled, no system interrupt is generated. If enabled, an interrupt labeled oMONDET_INT is set equal to one to indicate generation of the interrupt. In response to the interrupt, system software may initialize the FPD engine 250 in a manner dependent upon the FPD monitor. Subsequently, video/graphics data may be provided to the FPD engine for display on the FPD using TMDS transmitter 260.

Please replace the paragraph beginning at page 10, line 22 with the following rewritten paragraph:

The input output (I/O) adapter [526]522 is further connected to, and controls, disk drives 547, printer 545, removable storage devices 546, as well as other standard and proprietary I/O devices.

In the Claims:

Please amend claim 5 as follows:

5. (Amended) The method of claim 1, further comprising the step of:

determining if the first input is in a stable state before the step of [asserting]asserting.